Sun May 31 Classwork

Sunday, May 31, 2020 3:37 PM

Classwork May 31

Passage Correction

skim & find the central idea

→ author's tone → ① formal
(Keep this in mind) ② informal
③ rhetorical questions
④ directly addressing the reader

Revising/Editing Part B

Directions: Read the passage below and answer the questions following it. You will be asked to improve the writing quality of the passage and to correct errors so that the passage follows the conventions of standard written English. You may reread the passage if you need to. Mark the best answer for each question.

Errors in Our Food Economy

(1) Scientific research need not confine itself to the laboratory, especially when we need to diagnose a problem in our relationship to food. (2) By interpreting the observations of practical life, science has found that several errors are common in the use of food. (3) We must work hard to eliminate food waste so that we can make the world a better place.

(4) First, many people purchase needlessly expensive kinds of food. (5) Mutton costs $12 per pound, whereas chicken costs only $2. (6) Unfortunately, those who spend the most are often the ones who can least afford it, but they do so under this mistaken assumption.

(7) Secondly, the food which we eat does not always contain the proper proportions of the different kinds of nutritive ingredients. (8) We consume relatively too much of the fuel ingredients of food. (9) These ingredients consist primarily of the fats of meat, butter, and the starch which makes up the larger part of the nutritive material of flour. (10) These make muscle and sinew, serving as the basis of blood, bone and brain. (11) Conversely, we consume relatively too little of the protein of flesh-forming substances, like the lean of meat and fish and the gluten of wheat.

(12) Thirdly, many people, not only the well-to-do, but those in moderate circumstances, waste tons of food. (13) Part of the excess is simply thrown away with the wastes of the table and the kitchen; so that the injury to health, great as it may be, is doubtless much less than if all were eaten. (14) Probably the worst sufferers from this evil are well-to-do people of sedentary occupations—brain workers as distinguished from hand workers.

(15) We are guilty of serious errors in our cooking. (16) We waste a great deal of fuel in the preparation of our food, and even then a great deal of the food is very badly cooked. (17) Can we afford to spend such a large part of our budget on food? (18) A reform in these methods of cooking is one of the economic demands of our time.

7. Which sentence should replace sentence 3 to best introduce the main claim of the passage?

- **A.** These errors are all around us, and it need not take a particularly onerous effort to identify the problems.
- **B.** Science can help mankind become a better, more responsible steward of the world it has received.
- **C.** Food waste must be discouraged as the population trend reveals no indication of slowing down.
- **D.** Mankind has looked upon all its creatures and imperiously decided to domesticate four primary food groups.

8. Which sentence can best follow and support sentence 4?

- **E.** Much of the food they purchase can easily be bought at a butcher rather than a supermarket.
- **F.** They do this under the impression that there is a benefit in the costlier materials, when there really isn't.
- **G.** A vegetarian diet, for example, doesn't necessarily mean that one eats only plants.
- **H.** The most nutritious foods often do not have the labeling to differentiate themselves from others.

9. Which transition word or phrase should be added to the beginning of sentence 8?

- **A.** Therefore,
- **B.** Nonetheless,
- **C.** In fact,
- **D.** Nevertheless,

10. Where should sentence 11 be moved to improve the organization of the third paragraph (sentences 7–11)?

- **E.** to the beginning of the paragraph
- **F.** between sentences 7 and 8
- **G.** between sentences 8 and 9
- **H.** between sentences 9 and 10

11. Which revision of sentence 12 best maintains the formal style of the passage?

- **A.** Thirdly, many people, not only the well-to-do, but those in moderate circumstances, waste tons of food.
- **B.** Thirdly, many people, not only the well-to-do, but those in moderate circumstances, blow all their dough on food.
- **C.** Thirdly, many people, not only the well-to-do, but those in moderate circumstances, waste needless quantities of food.
- **D.** Thirdly, many people, not only the well-to-do, but those in moderate circumstances, eat like a savage.

12. Which sentence is irrelevant and should be removed?

- **E.** sentence 8
- **F.** sentence 13
- **G.** sentence 16
- **H.** sentence 17

13. Which concluding sentence should be added after sentence 18 to support the main claim presented in the passage?

- **A.** Another economic demand is the pollution, resulting from corporate agriculture.
- **B.** With the aid of science, we simply cannot fail to rise up and meet that demand.
- **C.** In the end, we must find a way to encourage the conservation of resources or suffer the consequences.
- **D.** After all, the American public is notorious for waste and cannot be expected to change its behavior.

not our main topic

too generic

directly refers to what came before.

not the authors tone

What is the main character's mood in this?

Hopeful and proud of his work but he is taking a lot risks

Passage I

LITERARY NARRATIVE: This passage is adapted from the novel *Bitter Grounds* by Sandra Benítez (©1997 by Sandra Benítez).

Alvaro Tobar gripped the wheel of his convertible and leaned into the approaching curve. He loved the sense of power he experienced when he was in the driver's seat. He'd owned the car since before the war, and maybe now that the war had ended, he would buy a newer model. This convertible he would not sell, however. He patted the wheel as if reassuring the vehicle of his loyalty.

It was a late afternoon in early November. The air was heavy with coming rain, surely one of the last downpours before the dry season. Alvaro would wait for the first drops to fall before he stopped to raise the car's top. He was only a few kilometers from San Salvador and, once inside the city limits, only minutes from home.

contention

Alvaro's thoughts turned to his cotton harvest. For the past week, he'd been on the eastern coast, at his plantation outside Usulután. On this trip, he had helped ready the hacienda for the harvest, which would start at month's end. Much was riding on his cotton. He always referred to it as "mi algodón." My cotton, a venture that he, and not his mother, controlled. He pictured his mother's strong, handsome face. Eugenia Herrera de Tobar. At seventy-three, doña Eugenia was still the undisputed ruler of the Tobar family. As the doyenne, she controlled her business and private affairs with as much vigor as she had since her husband's death. Because she had Alvaro and his four older sisters to raise, she took over the reins of her husband's cattle-ranching operation and his vast property holdings and never relinquished them. Under her control, her husband's enterprises prospered. Oh, there were moments when she cried out against the fate that had sent her down a path strewn with so much responsibility, "It's a heavy burden life has handed me," she liked to say. "A burden I long to have lifted from my shoulders." Even as a youngster, however, when Alvaro heard his mother's lamentations, he had glimpsed into her heart as if her chest were made of glass. In her heart, he had seen the pleasure the burden gave her.

It was power that obsessed her. And could he blame her? He had had a whiff of the heady scent of power himself. He smelled it in his cotton. He'd been in the business for four years. The first three years were hopeful ones. There was a world war, and unlike coffee, cotton prices rose steadily, thanks to the growth of the local textile industry.

From the start, his mother had not encouraged him to strike out on his own. "Only fools go into cotton when there's cattle to be raised or coffee to be grown," she said, compelling him to work all the harder to prove her wrong. He had spent months scouting for the right land among the family's properties on the flat coastal plain. When he found it, he had lovingly sown the best seed himself. And he had kept a vigil on the growing plants, Lying in a hut next to the field, he was present at the moment the buds broke into flower.

Once Alvaro reached Avenida Cuscatlán, he accelerated, weaving in and out of traffic. Cotton. A man took a risk growing it, for cotton might never make the money coffee would, but Alvaro did not allow this thought to perturb him. He had various means of making a living: There was real estate to be bought and sold, a seat on the bank board, the shrimping business on the coast. He had disbanded his law practice years ago, although, at times, he took a case or two on a consulting basis. But it was in the cotton business that he'd placed his heart and money. Last year, so sure was he of a better-than-ever yield, that he'd invested his wife's money in it as well. It was the inheritance from her grandfather, bequeathed to her twelve years before. Magda had entrusted it to Alvaro, and he had carefully managed the money, seeing to its growth. When the time was right, she would use her inheritance for her own business scheme: a gift shop named Tesoros.

The disaster of last year's harvest flooded his mind. He sank back against the seat, remembering his cotton, the bolls swollen and soon to burst into a cloud of white, infested malevolently with weevils.

But this year would be different. He had taken measures. He had spent the better part of the week stockpiling insecticides that would insure this crop against failure. He had not told Magda any of this, of course. Why cause her concern? It was all a matter of cash flow, of money transferred from one account to the other, of bank loans and promissory notes. This year, because of insecticides, would bring his first bumper crop.

1. Which of the following topics preoccupies Alvaro during his drive?
   - A. The way he has handled doña Eugenia's inheritance
   - B. The falling price of the crop he had hoped would bring him financial security
   - C. The damage he has done to his reputation by making thoughtless career changes over the years
   - D. The personal and practical elements that factor into his efforts to succeed in business

2. Which of the following descriptions best fits Alvaro's approach to growing cotton as it is described in the passage?
   - F. Extremely arrogant; he feels entitled to success without working hard to achieve it.
   - G. Deeply involved; there is little he won't do to succeed.
   - H. Detached; he thinks the pursuit of wealth is better left to those who care about it.
   - J. Naïve; he has ignored the advice of those with years of experience growing the crop.

3. How does Alvaro's opinion of coffee and cotton compare to that of his mother's?
   - A. Alvaro thinks that cotton is the superior crop, but his mother thinks coffee is an equally lucrative crop.
   - B. Alvaro thinks that cotton is the better wartime crop, but his mother thinks coffee is.
   - C. Alvaro thinks that both crops are susceptible to insect infestation, but his mother thinks that neither is.
   - D. Alvaro thinks that cotton holds the more promising future for him, but his mother thinks coffee does.

4. How does Alvaro view the burden of responsibility his mother says she wants lifted from her shoulders?
   - F. As the barrier between Alvaro and his success at growing cotton
   - G. As the sorrow that mars the otherwise happy life of his mother
   - H. As an enduring presence that his mother works to her advantage
   - J. As a heavy weight that lifted from Alvaro's shoulders when he defied his mother

5. Which of the following phrases most accurately describes the last paragraph?
   - A. Wishful thinking supported by more wishful thinking
   - B. Painful realizations followed by widespread blaming
   - C. A sentiment and the experiences that reverse it
   - D. A stand taken by one person and supported by another

6. According to the passage, where is Alvaro headed in his car on a late afternoon in early November?
   - F. His plantation outside Usulután
   - G. His law office
   - H. His mother's hacienda
   - J. His home in San Salvador

7. Which of the following actions is presented in the passage as being more figurative than literal?
   - A. "Gripped the wheel" (line 1)
   - B. "Took over the reins" (line 29)
   - C. "Heard his mother's lamentations" (lines 37–38)
   - D. "Sown the best seed" (lines 54–55)

8. The quality of glass that is most strongly alluded to in lines 36–40 is:
   - F. fragility.
   - G. transparency.
   - H. smoothness.
   - J. sharp edges.

9. To what does Alvaro most directly attribute the rise of cotton prices?
   - A. The end of a world war
   - B. The effectiveness of new pesticides
   - C. The growth of the local textile industry
   - D. The failure of the previous year's harvest

10. In the context of the passage, the primary function of lines 63–67 is to list the occupations that Alvaro:
    - F. dabbled in but found less compelling than cotton farming.
    - G. held in high regard though his mother did not.
    - H. had rejected as representing the foolish notions of his youth.
    - J. envisioned as being within his reach were he to succeed in farming cotton.

Passage II

SOCIAL SCIENCE: This passage is adapted from *The Tipping Point: How Little Things Can Make a Big Difference* by Malcolm Gladwell (©2002 by Malcolm Gladwell).

There is a concept in cognitive psychology called the channel capacity, which refers to the amount of space in our brain for certain kinds of information. Suppose, for example, that I played you a number of different musical tones, at random, and asked you to identify each one with a number. If I played you a really low tone, you would call it one, and if I played you a medium tone you would call it two, and a high tone you would call three. The purpose of the test is to find out how long you can continue to distinguish among different tones. Most people can divide tones into only about six different categories before they begin to make mistakes and start lumping different tones in the same category. This is a remarkably consistent finding. If, for example, I played you five very high pitched tones, you'd be able to tell them apart. And if I played you five very low pitched tones, you'd be able to tell them apart. You'd think, then, that if I combined those high and low tones and played them for you all at once, you'd be able to divide them into ten categories. But you won't be able to. Chances are you'll still be stuck at about six categories.

As human beings, we can only handle so much information at once. Once we pass a certain boundary, we become overwhelmed. What I'm describing here is an intellectual capacity—our ability to process raw information. But if you think about it, we clearly have a channel capacity for feelings as well.

Take a minute, for example, to make a list of all the people whom you would consider yourself truly

brains evolved because our primate ancestors began to engage in more sophisticated food gathering: instead of just eating grasses and leaves they began eating fruit, which takes more thinking power. You travel much farther to find fruit than leaves, so you need to be able to create mental maps. You have to worry about ripeness. You have to peel parts away in order to eat the flesh of a fruit, and so on. The problem with that theory is that if you try to match up brain size with eating patterns among primates, it doesn't work. So what does correlate with brain size? The answer, Dunbar argues, is group size. If you look at any species of primate—at every variety of monkey and ape—the larger their neocortex is, the larger the average size of the groups they live with.

Dunbar's argument is that brains evolve, they get bigger, in order to handle the complexities of larger social groups. If you belong to a group of five people, Dunbar points out, you have to keep track of ten separate relationships: your relationships with the four others in your circle and the six other two-way relationships between the others. That's what it means to know everyone in the circle. You have to understand the personal dynamics of the group. If you belong to a group of twenty people, however, there are now 190 two-way relationships to keep track of: 19 involving yourself and 171 involving the rest of the group. Even a relatively small increase in the size of a group creates a significant additional social and intellectual burden. Humans socialize in the largest groups of all primates because we are the only animals with brains large enough to handle the complexities of that social arrangement.

Reading strategy
(descriptive or argumentative only)

close to. The average answer is 12 names. Those names make up what psychologists call our sympathy group. Why aren't groups any larger? Partly it's a question of time. If you look at the names on your sympathy list, they are probably the people whom you devote the most attention to. If your list was twice as long, would you still be as close to everyone? Probably not. To be someone's friend requires a minimum investment of time. More than that, though, it takes emotional energy. At a certain point, at somewhere between 10 and 15 people, we begin to overload, just as we begin to overload when we have to distinguish between too many tones.

Perhaps the most interesting natural limit, however, is what might be called our social channel capacity. The case for a social capacity has been made, most persuasively, by the British anthropologist Robin Dunbar. Dunbar begins with a simple observation. Primates—monkeys, chimps, baboons, humans—have the biggest brains of all mammals. More important, a specific part of the brain of humans and other primates—the region known as the neocortex, which deals with complex thought and reasoning—is huge by mammal standards. For years, scientists have argued back and forth about why this is the case. One theory is that our

11. Which of the following statements best describes the organizational structure of the passage?

- **A.** The author describes a psychological concept and then explores aspects of that concept that support a central claim.
- **B.** The author presents theories about a psychological concept by describing his own experiences with it.
- **C.** The author provides a chronology of the development of a psychological concept.
- **D.** The author presents a problem from the field of psychology and then offers several possible solutions to that problem.

12. Based on the passage, which of the following statements best captures the central idea behind the concept of channel capacity?

- **F.** "There is a concept in cognitive psychology called the channel capacity" (lines 1–2).
- **G.** "This is a remarkably consistent finding" (line 14).
- **H.** "As human beings, we can only handle so much information at once" (lines 23–24).
- **J.** "But if you think about it, we clearly have a channel capacity for feelings as well" (lines 27–28).

13. According to the passage, which of the following is a theory about the evolution of brain size in primates that is supported by some scientists but NOT by Dunbar?

- **A.** Primates' brains increased in size only slightly as primates evolved.
- **B.** Primates' brains became larger as primates' social groups became larger.
- **C.** Primates' brains became larger because primates changed their eating habits.
- **D.** Primates' brains evolved relatively slowly in comparison to the rest of their bodies.

14. The main idea of the last paragraph is that:

- **F.** as brains evolve, they decrease in size.
- **G.** Dunbar has gone to great lengths to try to prove his argument.
- **H.** the neocortex is the part of the brain responsible for tracking social relationships.
- **J.** humans have the largest brains of all primates because humans socialize in the largest groups.

15. The passage defines a sympathy group most specifically as:

- **A.** a small group of animals of the same species.
- **B.** any cluster of primates that live together.
- **C.** the people one feels truly close to.
- **D.** a person's immediate family.

16. Which of the following statements best describes how the author views Dunbar's theory of social channel capacity?

- **F.** He is intrigued by Dunbar's theory and finds Dunbar's argument compelling.
- **G.** He believes Dunbar's argument is problematic but cannot disprove the theory.
- **H.** He is unsure that Dunbar's theory will ever be accepted by the larger scientific community.
- **J.** He believes Dunbar's argument is indisputable and that the supporting research is exhaustive.

17. Based on the passage, the assertion that primates have the largest brains of all mammals is presented as:

- **A.** a fact that serves as the author's main point in the passage.
- **B.** a fact that serves as the basis for Dunbar's argument.
- **C.** an opinion the author offers to explain Dunbar's theory.
- **D.** an opinion Dunbar is trying to prove with his theory.

18. As it is used in line 56, the word *sophisticated* most nearly means:

- **F.** worldly.
- **G.** complex.
- **H.** cultured.
- **J.** genteel.

19. According to the passage, one reason some scientists believe an animal uses more brainpower to eat fruits than it does to eat leaves is because fruits:

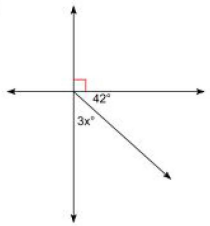
- **A.** are smaller than leaves and require practice to eat.
- **B.** cannot be eaten by all animals, unlike leaves.
- **C.** offer more nutrition than most leaves.
- **D.** are not as easily accessible as leaves.

20. Based on the passage, which of the following statements, if true, would most WEAKEN Dunbar's theory?

- **F.** Some primates with relatively small neocortexes socialize in larger groups than humans.
- **G.** The human brain is continuing to evolve as social networking expands.
- **H.** Except for humans, apes have the largest brains among primates.
- **J.** Mountain gorillas live in groups that average nine individuals.

Find the value of x.

1)



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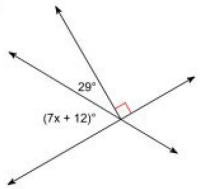

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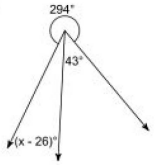

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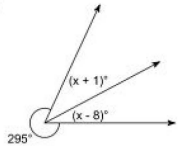

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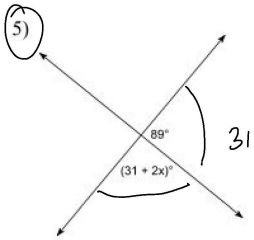
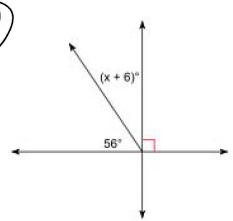


$31 + 2x + 89 = 180$

$x = 38$

6)



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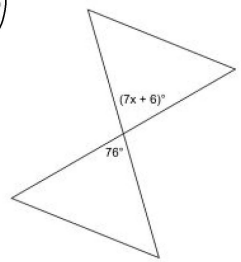

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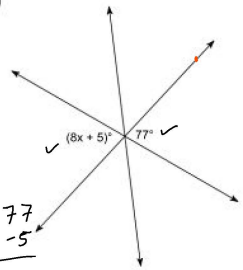


$8x + 5 = 77$

$-5 \quad -5$

$\frac{8x}{8} = \frac{72}{8}$

$x = 9$

1) complementary (2 angles)

90°

2) supplementary (2 angles)

180°

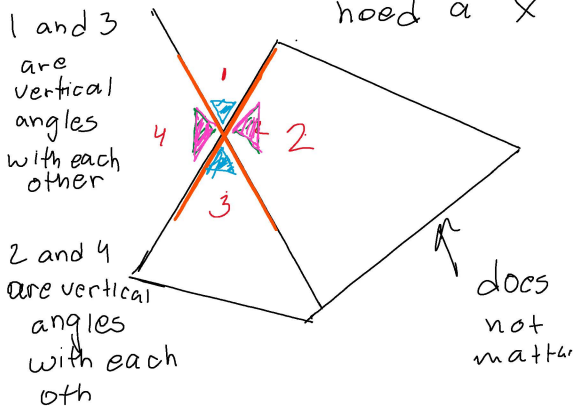
(straight line angle is 180°)

3) Full circle = 360°

4) adjacent (share a common side)

5) Vertical angles

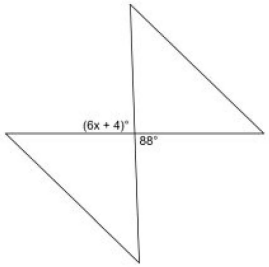
need a "X"



Vertical angles are equal to each other

(congruent)

9)



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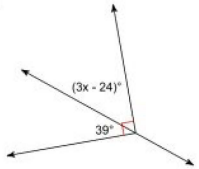
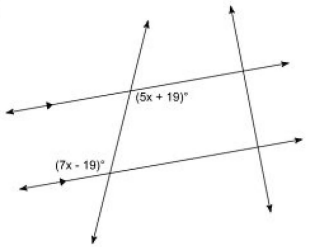


11)



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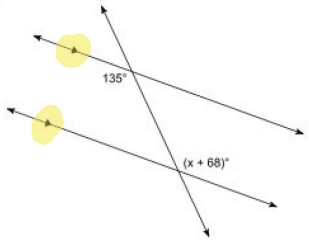

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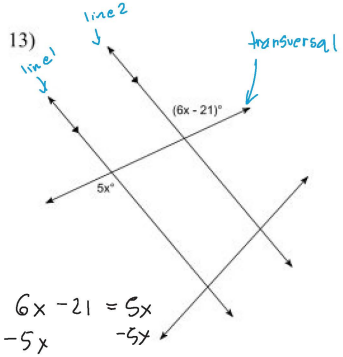


$6x - 21 = 5x$

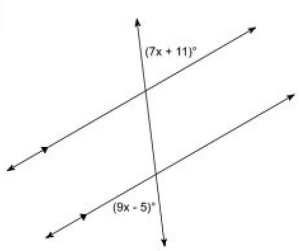
$-5x \quad -5x$

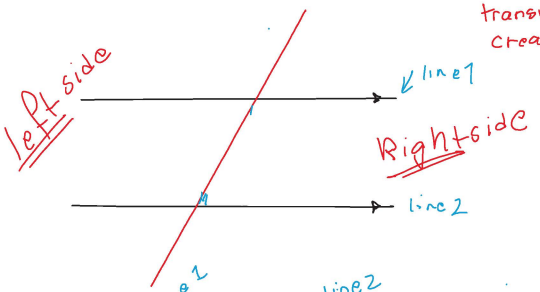
$x - 21 = 0$

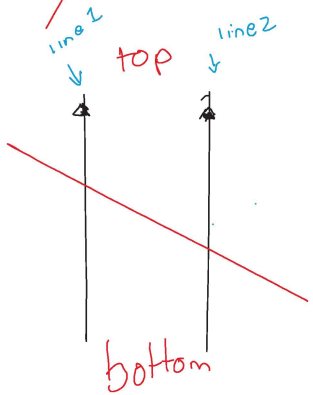
$+21 \quad +21$

$x = 21$

14)







0) vertical angles

1) corresponding angle
   a) one int. one ext
   b) same side
   c) different parallel lines

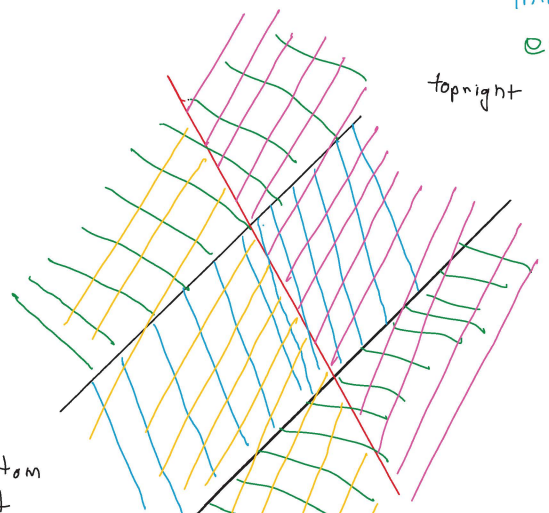
2) alternate interior

3) alternate exterior
   a) either both int or both ext
   b) opposite side
   c) different parallel lines

the angles are equal to each other

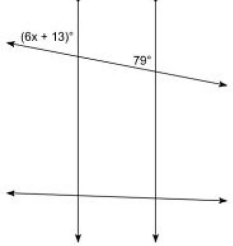
4) same side interior
   a) ~~same~~ both int.
   b) same side
   c) different parallel line

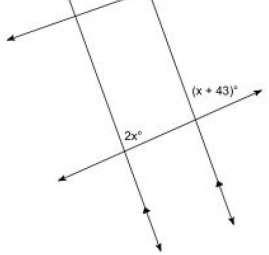
angles add up to 180°



15)

16)





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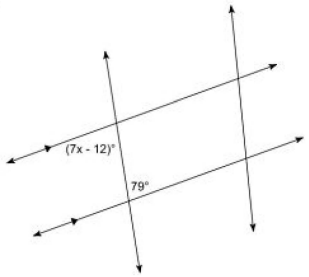
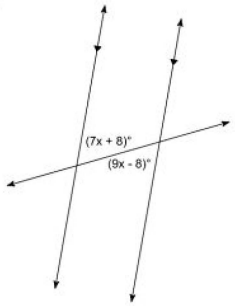


18)



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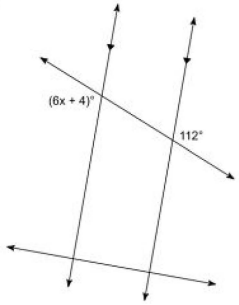

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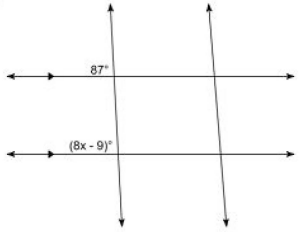

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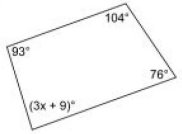

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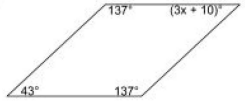

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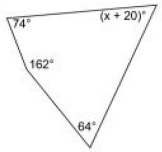

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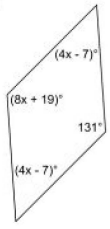


Sum of angles in a triangle
= 180

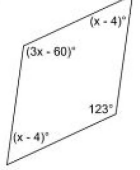
Sum of angles in a quadrilateral
= 360

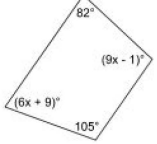
Sum of angles in an n-sided figure
$= (n-2) \cdot 180$

25)

26)

Sum of angles in a 5 sided figure





$(n-2)\cdot 180$

$(5-2)\cdot 180$

$= 3\cdot 180 = 540$

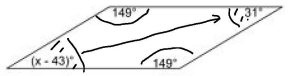
Sum of angles in 12-sided figure

$(n-2)\cdot 180$

$(12-2)\cdot 180$

$10 \cdot 180 = 1800$

27)

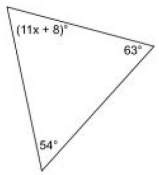


$x - 43 = 31$

$+43 \quad +43$

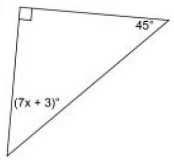
$x = 74$

28)

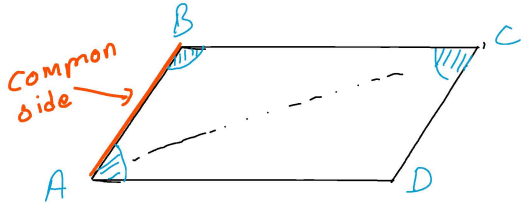


29)

30)



Special for parallelogram



1) adjacent angles add up to 180 (they are supplementary)

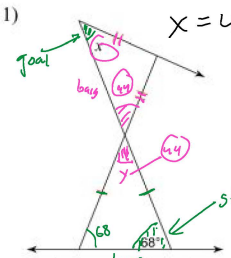
$A + B = 180$

2) opposite angles are equal

$A = C$

Find the value of x.

1)



$x = 44$

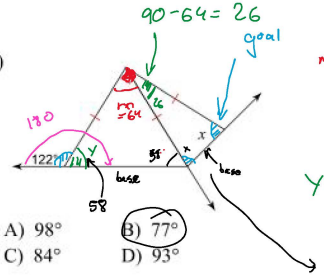
A) 47° B) 44°
C) 53° D) 42°

sum of all angle = 180

$y = 180 - 68 - 68$

$= 44$

2)



A) 98° B) 77°
C) 84° D) 93°

$m = 180 - 58 - 58$

$= 64$

$y = 180 - 122$

$= 58$

$26 + x + x = 180$

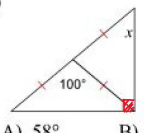
$26 + 2x = 180$

$-26 \quad -26$

$2x = 154$

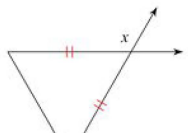
$x = 77$

3)

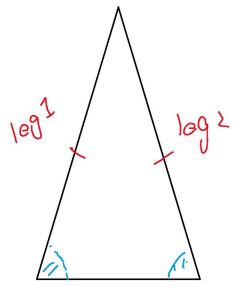


A) 58° B) 46°

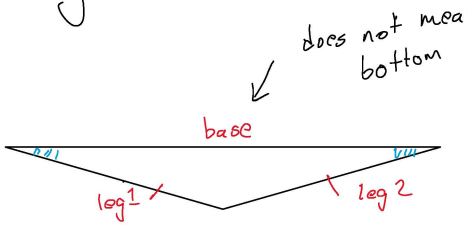
4)



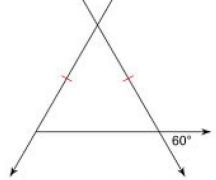
Isosceles triangle



does not mean bottom

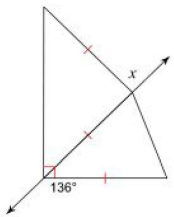


C) 50° D) 42°



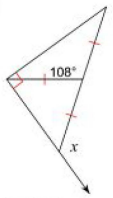
A) 161° B) 120°
C) 102° D) 145°

5)



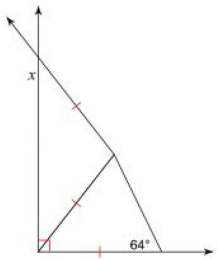
A) 90° B) 92°
C) 123° D) 116°

6)



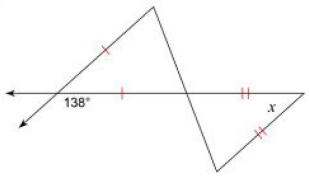
A) 99° B) 139°
C) 126° D) 122°

7)



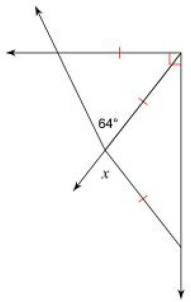
A) 103° B) 157°
C) 101° D) 142°

8)



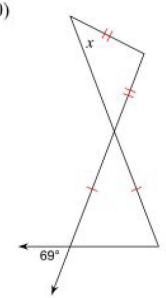
A) 35° B) 52°
C) 56° D) 42°

9)



A) 53° B) 95°
C) 76° D) 100°

10)



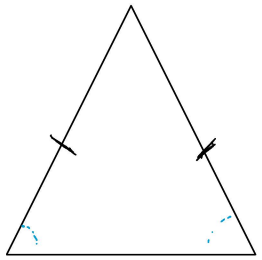
A) 42° B) 55°
C) 54° D) 34°

11)

12)

If the legs are equal then the base angles are equal to each other

I

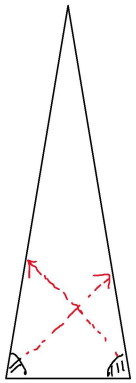


base

condition : 2 sides are equal

Then the base angles are equal.

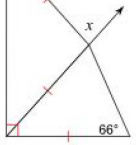
II



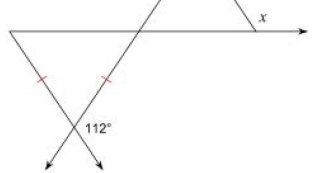
condition : 2 angles are equal

The opposite sides are equal.

Both are isosceles



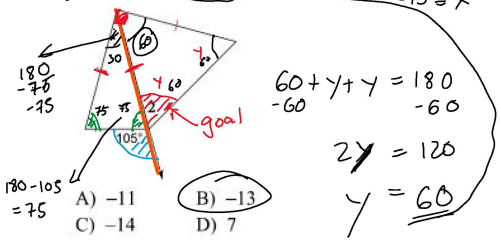
A) 96° B) 84°
C) 75° D) 110°



A) 124° B) 159°
C) 109° D) 105°

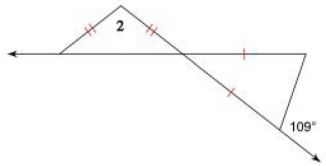
Find the value of x.

1) $m\angle 2 = 73 + x$



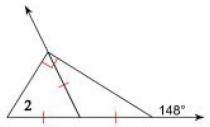
A) −11 B) −13
C) −14 D) 7

2) $m\angle 2 = 10x + 4$



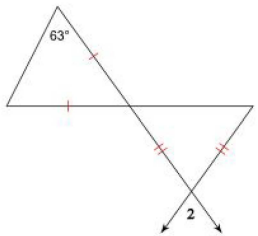
A) −11 B) −10
C) 10 D) 13

3) $m\angle 2 = 66 + x$



A) −8 B) 8
C) 9 D) −10

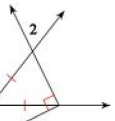
4) $m\angle 2 = 5x + 2$

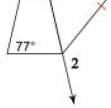


A) −10 B) 14
C) 8 D) −7

5) $m\angle 2 = x + 137$

6) $m\angle 2 = 6x - 8$





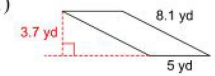
A) −9 B) 7
C) −11 D) 8

A) −12 B) 8
C) −14 D) 12

Assignment

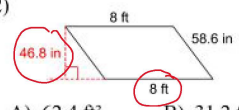
Find the area of each.

1)



A) 21 yd² B) 18.5 yd²
C) 37 yd² D) 9.3 yd²

2)



A) 62.4 ft² B) 31.2 ft²
C) 30.1 ft² D) 15.6 ft²

46.8 in • 8 ft (convert units)

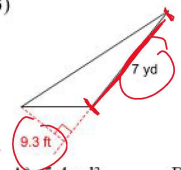
area of a parallelogram (90° ie. box)

= one side • perpendicular height

area of a triangle

$= \frac{1}{2} \cdot b \cdot h$

3)



A) 5.4 yd² B) 10.85 yd²
C) 21.7 yd² D) 2.95 yd²

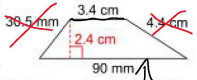
perpendicular height

not necessarily the bottom

h

parallel side 1 (base 1)

4)



A) 7.4 cm² B) 14.88 cm²
C) 7.48 cm² D) 29.76 cm²

parallel side 2 (base 2)

Area of a trapezoid

$= \frac{\text{base 1} + \text{base 2}}{2} \cdot \text{perpendicular height}$

$\left(\frac{3.4\text{cm} + 90\text{mm}}{2}\right) \cdot 2.4$

5)

A) 26.64 m² B) 13.3 m²
C) 23.54 m² D) 53.28 m²

6) circumference = 22π m

A) 128π m² B) 557π m²
C) 121π m² D) 511π m²

$A = \pi r^2$

$C = 2\pi r = \pi \cdot d$

7) circumference = 20π mi

A) 100π mi² B) 104π mi²
C) 31π mi² D) 123π mi²

8) circumference = 18π ft

A) 81π ft² B) 121π ft²
C) 98π ft² D) 106π ft²

Find the circumference of each circle.

9) area = 9π in²

A) 6π in B) 8π in
C) 16π in D) 4π in

10) area = 64π km²

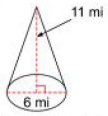
A) 11π km B) 10π km
C) 16π km D) 8π km

11) area = 121π mi²

A) 25π mi B) 24π mi
C) 23π mi D) 22π mi

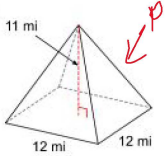
Find the volume of each figure. Round to the nearest tenth.

12)



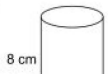
A) 103.7 mi³ B) 89.2 mi³
C) 99 mi³ D) 49.5 mi³

13)



A) 1172.2 mi³ B) 1056 mi³
C) 528 mi³ D) 961.2 mi³

14)



15)

Volume of a cylinder
$\pi r^2 h$

pyramid

Volume of a cone
$= \frac{1}{3} \pi r^2 h$

Volume of a sphere
$\frac{4}{3} \pi r^3$

Volume of a pyramid

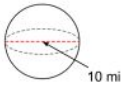
A) 271.4 cm³ B) 226.2 cm³
C) 320.3 cm³ D) 640.6 cm³

A) 210 km³ B) 210.1 km³
C) 420 km³ D) 182.7 km³

Volume of a pyramid

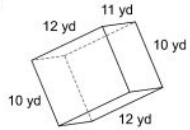
$= \frac{1}{3} \cdot$ base area $\cdot$ perpendicular height

16)



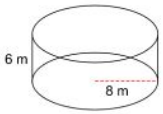
A) 523.6 mi³ B) 130.9 mi³
C) 261.8 mi³ D) 110 mi³

17)



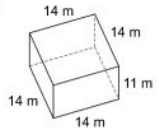
A) 660 yd³ B) 1320 yd³
C) 547.8 yd³ D) 465.6 yd³

18)



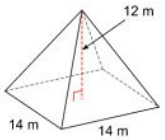
A) 1694 m³ B) 1206.4 m³
C) 1435.6 m³ D) 3388 m³

19)



A) 2156 m³ B) 2479.4 m³
C) 1239.7 m³ D) 1090.9 m³

20)



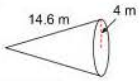
A) 917.3 m³ B) 788.9 m³
C) 946.7 m³ D) 784 m³

Find the surface area of each figure. Round to the nearest tenth.

21)

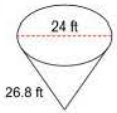
A) 235.3 mi² B) 287 mi²
C) 249.6 mi² D) 499.2 mi²

22)



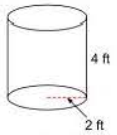
A) 239.2 m² B) 233.7 m²
C) 277.5 m² D) 201 m²

23)



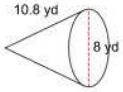
A) 1162.3 ft² B) 1417.4 ft²
C) 1243.3 ft² D) 1462.7 ft²

24)



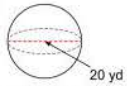
A) 75.4 ft² B) 90.5 ft²
C) 45.3 ft² D) 50.7 ft²

25)



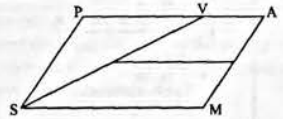
A) 149 yd² B) 186 yd²
C) 165.5 yd² D) 126.7 yd²

26)



A) 1457.7 yd² B) 2915.4 yd²
C) 3265.2 yd² D) 1256.6 yd²

GRID-IN QUESTIONS			
Questions 58 - 62			
58.	A standard deck of cards consists of 52 cards. What is the probability that a card selected at random is a face card or a black ace?	61.	The sum of two consecutive even integers is -46. What is the absolute value of the difference of the squares of these two numbers?
59.	Two boys play a barter trading game and use different items to exchange goods: if 2 Lego cubes = 5 matches 1 apple = 4 Lego cubes 3 pears = 2 apples. According to their rules of exchange,	62.	Pamela goes swimming and training at the gym. In the last 28-day period, Pamela went swimming $\frac{2}{7}$ of all the days and she had a rest from the trainings for $\frac{1}{14}$ of the whole period. Pamela went to the gym on the

	how many matches does one boy need to exchange to get 6 pears?		remaining days. How many days did Pamela go to the gym during the 28-day period?
60.	In the parallelogram SPAM, the segment SV is angle S's bisector. If the sides SP and PA have lengths 5 and 8 cm, what is the length of the midline of the trapezoid SVAM?  		

MULTIPLE CHOICE QUESTIONS			
Questions 63 - 68			
63.	A theater expected to earn a profit of $4,450 from a premiere show performance. In fact, the profit earned was 76% of what was expected. How much money did the theater actually earn? A. $3,382 B. $3,482 C. $1,068 D. $1,069	66.	A survey about how the temperature causes insomnia says that among 4,000 interviewed people 1,800 cannot sleep when the temperature is too high, 2,400 cannot sleep when the temperature is too low and 600 people cannot sleep in both cases. How many people's sleep is not affected by the temperature? E. 100 F. 200 G. 300 H. 400
64.	Oil flows out of a tank at a rate of 2.6 gallons per minute. At this rate, how long (in minutes) would it take to fill a tub that has a capacity of 221 gallons? E. 80 minutes F. 85 minutes G. 90 minutes H. 95 minutes	67.	How many different 3-letter words can be created using the letters from the word "LAPTOP", if the letters cannot repeat? A. 720 B. 360 C. 120 D. 60

65. The table below gives the height of 5 basketball players. Which of the following is Steve's height if the mean height of these basketball players is 190 cm?

Player	Height
Chris	192
Steve	x
Tom	188
Larry	190
John	186

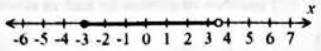
A. 192 cm
B. 193 cm
C. 194 cm
D. 195 cm

68. If $\frac{k+2m}{a-4} = \frac{2k-m}{4}$, what is the correct expression for a in terms of k and m?

E. $\frac{4(3k+m)}{2k-m}$
F. $\frac{4k^2+3km-2m^2+16}{4}$
G. $\frac{4(k+2m)}{2k-m}$
H. $\frac{2k^2-2m^2+16}{4}$

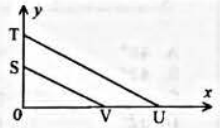
Questions 69 - 74

69. Which of the following system of inequalities represent the solution set shown on the number line below?



A. $\begin{cases} 2x-7<0 \\ 4x+12 \le 0 \end{cases}$
B. $\begin{cases} 2x-7 \ge 0 \\ 4x+12 < 0 \end{cases}$
C. $\begin{cases} 2x-7<0 \\ 4x+12 \ge 0 \end{cases}$
D. $\begin{cases} 2x-7 \le 0 \\ 4x+12 > 0 \end{cases}$

70. What is the area of the trapezoid STUV, if points S, T, U and V have coordinates (0,4), (0,5), (10,0) and (8,0) respectively?

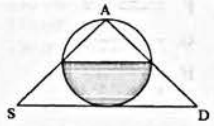


E. 9 $units^2$.
F. 10 $units^2$.
G. 12 $units^2$.
H. 14 $units^2$.

72. The fraction $\frac{47}{x}$ can be written in decimal form as 2.9375. What could be the possible value of x?

E. 16
F. 18
G. 20
H. 22

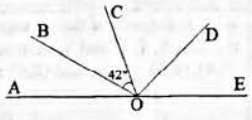
73. In the isosceles right triangle SAD, the length of its hypotenuse SD is 24 cm. What is the area of the shaded region?



A. $36\pi\ cm^2$
B. $12\pi\ cm^2$
C. $18\pi\ cm^2$
D. $144\pi\ cm^2$

71.	Two fair dice are rolled. What is the probability that the sum of the rolled numbers is an even number greater than 7 and both numbers are odd? A. $\frac{1}{5}$ B. $\frac{1}{9}$ C. $\frac{1}{12}$ D. $\frac{1}{15}$	74.	Point M divides segment AB in the ratio 3 : 4. If points K and L are midpoints of the segments AM and MB, what is the ratio $AK:KB$? E. 3:4 F. 3:7 G. 3:11 H. 3:14

Questions 75 - 80

75.	How many different 6-digit numbers can be created using the digits 0, 1, 2, 3, 4 and 5 without repeating any of these digits in the number and the number cannot start with 0? A. 720 B. 600 C. 360 D. 300	78.	Bugs Bunny ate 75 carrots during winter, which is 30% of all the carrots he had in stock. What is the total number of carrots he had in stock? E. 750 F. 250 G. 500 H. 275
76.	If n is an even natural number, what is the expression for the product of the previous even number and the next even number divided by n? E. $\frac{(n-1)(n+1)}{n}$ F. $\frac{(n-2)(n+2)}{n}$ G. $\frac{\frac{n}{n}}{(n-1)(n+1)}$ H. $\frac{n}{(n-2)(n+2)}$	79.	Rays BO and DO are angle bisectors of $\angle AOC$ and $\angle COE$. What is the measure of $\angle COD$?  A. 48° B. 42° C. 58° D. 52°
77.	Using the definition of the absolute value of a number, what is the value of the expression below? $\lvert(-3+(-1))\cdot 5-12\rvert$ A. 32 B. 2 C. −22	80.	If $a=-4$, $b=4$ and $c=-3$, what is the value of the expression $(b-a)\cdot c+(b+c)\cdot a$? E. −4 F. −28 G. 20 H. 12

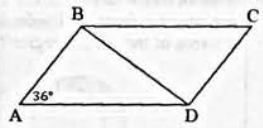
D. 22

Questions 81 - 86

81. Given $\frac{a}{4} = b + 3$, $\frac{b}{5} = d + 1$, $d = 3c$, which variable has the greatest value if $c < -1$?

A. a
B. b
C. c
D. d

82. In the parallelogram ABCD, the diagonal BD is perpendicular to the side AB. If the angle BAD = 36°, what is the measure of the angle ABC?



E. 90°
F. 126°
G. 54°
H. 144°

83. A recipe requires 4 eggs for 9 cookies. How many eggs are required to prepare 72 cookies?

A. 8
B. 16
C. 32
D. 64

84. Lisa has greater number of nickels than Tom has dimes. If together they have $5.55, what is the smallest possible number of nickels Lisa could have?

E. 36
F. 37
G. 38
H. 39

85. A snail moves up the tree 32 cm each night and moves down the tree 7 cm each day. At which height the snail will be at the end of 6th day, if it starts moving from the ground 1st day during the night?

A. 125 cm
B. 132 cm
C. 118 cm
D. 150 cm

86. The ratio between girls and boys in 6th grade is 3 : 4 and the ratio between girls and boys in 7th grade is 7: 5. What is the number of children in 6th grade, if there are a total of 78 students in both grades and the number of all girls is the same as the number of all boys?

E. 36
F. 39
G. 42
H. 44